

**ABSTRACT:**

Please replace the existing Abstract with the following Abstract.

A WDM transmission system is provided which can multiplex/demultiplex and transmit wavelength division multiplexing signals, where signal lights have a different signal bandwidth, in a status without much deterioration of transmission quality. In the WDM transmission system, an optical receiver includes a demultiplexing unit which demultiplexes the wavelength division multiplexing signals and outputs the demultiplexed signal lights from a plurality of output ports, wherein each output port has transmission characteristics to be set such that the bandwidth of the transmission band where the light transmits and the bandwidth of the non-transmission band where light does not transmit are different, and the transmission band substantially matches with the signal band of the signal lights that are output from the output port out of the received wavelength division multiplexing signals.